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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/019,451	07/30/2002	Elvir Causevic	KEDI 7230US	4217
1688	7590	12/10/2004	EXAMINER	
POLSTER, LIEDER, WOODRUFF & LUCCHESI 12412 POWERSCOURT DRIVE SUITE 200 ST. LOUIS, MO 63131-3615			SZMAL, BRIAN SCOTT	
			ART UNIT	PAPER NUMBER
			3736	

DATE MAILED: 12/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/019,451	<b>Applicant(s)</b> CAUSEVIC ET AL.	
	<b>Examiner</b> Brian Szmaj	<b>Art Unit</b> 3736	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 September 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 and 8-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-17 and 24-36 is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-10, 18, 19 and 37 is/are rejected.
- 7) ☒ Claim(s) 11 and 20-23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Claim Objections***

1. Claim 4 is objected to because of the following informalities: The term "otoreflectance interface" is not defined in the disclosure. Appropriate correction is required.
2. Claim 11 is objected to because of the following informalities: In the last line of the claim, "a offset frame" should read as "an offset frame" to be grammatically correct. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 10, 18, 19 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zoth et al (6,110,126) in view of Besserman (4,284,847).  
Zoth et al disclose an audiological screening method and apparatus and further disclose a portable hand-held enclosure (See Column 9, lines 40-42); a signal processor housed by the enclosure, the processor having a computer program operated on command by a user, and applying an otoacoustic emission test (See Start Button in Figure 5 and Column 9, lines 6-56); a display (17) for displaying the results; a connection point on the enclosure for a probe (See Figure 5); a power supply for operating the signal processor

(See Column 9, lines 56-58); and the power supply is rechargeable (See Column 9, lines 56-58).

Zoth et al however fail to disclose a means for maintaining a plurality of test subject records.

Besserman discloses a means for audiometric testing, analyzing and recording and further discloses a means for maintaining a plurality of test records. See Column 2, lines 41-45.

Since both Zoth et al and Besserman disclose audiometric screening apparatus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Zoth et al to include the use of a means to store a plurality of patient records, as per the teachings of Besserman, since it would provide a means of utilizing the device for a time before downloading the data to another computer system for storage or further analysis. It also would have been obvious to one of ordinary skill in the art to recognize the storage of the computer program of Zoth et al would require some means of a memory, and that the memory could easily be modified to also maintain a plurality of test records, as per the teachings of Besserman.

5. Claims 5 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zoth et al (6,110,126) and Besserman (4,284,847) as applied to claim 1 above, and further in view of Combs et al.

Zoth et al and Besserman, as discussed above, disclose an audiometric screening apparatus, but fail to disclose an otoacoustic emission simulator interface operatively connected to the signal processor for testing the system; and an otoacoustic auditory

emission interface operatively connected to the signal processor for recording or assessing hearing conditions of a test subject.

Combs et al disclose a device and process for generating and measuring the shape of an acoustic reflectance curve of an ear and further disclose an otoacoustic emission simulator interface operatively connected to the signal processor for testing the system; and an otoacoustic auditory emission interface operatively connected to the signal processor for recording or assessing hearing conditions of a test subject. See Column 15, lines 31-44; Column 18, lines 66-67; and Column 19, lines 1-2.

Since Zoth et al, Besserman and Combs et al disclose audiometric screening systems, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Zoth et al and Besserman, to include the use of an otoacoustic emission simulator to test the system, as per the teachings of Combs et al, since it would provide a means of ensuring the device is properly calibrated to provide accurate measurements.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zoth et al (6,110,126) and Besserman (4,284,847) as applied to claim 1 above, and further in view of Shennib.

Zoth et al and Besserman, as discussed above, disclose audiometric screening apparatus, but fail to disclose an infrared interface operatively connected to the signal processor for permitting communication between the signal processor and an external device.

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Shennib discloses a headset hearing tester and hearing aid programmer and further disclose an infrared interface operatively connected to the signal processor for permitting communication between the signal processor and an external device. See Column 5, lines 19-33.

Since Zoth et al, Besserman and Shennib disclose means for audiometric testing, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Zoth et al and Besserman to include the use of an infrared interface, as per the teachings of Shennib, since it would provide a means of performing the test using a hand-held device and receiving the signals wirelessly from the user.

7. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zoth et al (6,110,126) and Besserman (4,284,847) as applied to claim 1 above, and further in view of Zurek et al.

Zoth et al and Besserman, as discussed above, disclose audiometric screening apparatus, wherein Besserman discloses the use of a keyboard (9) connected to the signal processor, but both fail to disclose a memory mapped input/output device operatively connected to the memory subsystem and to the signal processor, the display being connected to the signal processor through the memory mapped device.

Zurek et al, as discussed above, disclose a method for testing adequacy of hearing and further disclose a memory mapped input/output device operatively connected to the memory subsystem and to the signal processor, the display being connected to the

signal processor through the memory mapped device. See Column 4, lines 34-63; and Column 5, lines 20-62.

Since Zoth et al, Besserman and Zurek et al disclose means for audiometric testing, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Zoth et al and Besserman to include the use of a memory subsystem, as per the teachings of Zurek et al, since it would provide a means of storing multiple parameters within a single memory system.

***Allowable Subject Matter***

8. The indicated allowability of claims 18 and 19 is withdrawn in view of the newly discovered reference(s) to Besserman.

9. Claims 20-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter: Claims 12 and 13 are allowable since no prior art could be found teaching or suggesting the signal processor being configured to perform a time domain sum and average over time for otoacoustic emission test signal detection, using a frame overlap method. Claims 14-17 are allowable since no prior art could be found teaching or suggesting a method for conducting an otoacoustic auditory emission test comprising averaging the digital signal over a predetermined number of sequential frames, wherein data from sequentially preceding frames is slid by a predetermined number of data

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points prior to averaging. Claim 24 is allowable since no prior art could be found teaching or suggesting a method of conducting an auditory test in which a reduced noise ratio is obtained by making a determination to accept a frame, reject a frame and update a noise average, or to discard a frame based upon at least one predefined parameter. Claims 25-27 are allowable since no prior art could be found teaching or suggesting a method for conducting an otoacoustic auditory emission test comprising: an overlap determined by using the specific claimed formula. Claims 28-36 are allowable since no prior art could be found teaching or suggesting an auditory screening device wherein the signal processor is configured to process otoacoustic emission signals received through the input/output interface using an offset frame overlap method to reduce uncorrelated noise present in results associated with the test procedure, as claimed in Claim 29.

### ***Response to Arguments***

11. Applicant's arguments with respect to claims 1, 5, 6 and 8-10 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Szmalec whose telephone number is (571) 272-4733. The examiner can normally be reached on Monday-Friday, with second Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max Hindenburg can be reached on (571) 272-4726. The fax phone




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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
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